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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,360	03/09/2004	Robert Galli	E001 P00622-US3	2257

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EXAMINER
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SAWHNEY, HARGOBIND S

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/796,360

Applicant(s)

GALLI, ROBERT

Examiner

Hargobind S. Sawhney

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. The Terminal Disclaimer filed on September 22, 2005 has been entered. As the Power of Attorney document is missing in the disclosure, the Terminal Disclaimer has been disapproved.
2. The amendment and records filed on September, 22, 2005 has been entered. Accordingly, each of claims 1-10 has been amended

### ***Claim Objections***

3. Claim 10 is objected to because of the following informalities:

In line 1, "a first and second contact" needs to be rephrased as -- first and second contacts--;

In lines 2 and 3, "said first contact;" is confusing. The recitation of the above-indicated recitation needs rephrasing.

Appropriate correction is required.

- The limitations included in lines 2 and 3 have not been considered in examining Claim 1. Further, the limitations appears to be generic duplication of that included in line
- 4.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 15 of U.S. Patent No.6, 827,468 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other as detailed below.

Instant Application	U.S. Patent No.:	Discussion on differences, and additional
10,796,360	6, 827,468 B2	References:

Claim 1	Claim 1	US Patent ('468 B2), Claim 1, lines 1-11, meets most of the limitations of the Claim 1 of the instant application. US Patent ('468 B2), Claim 1, lines 1-11, recites an interior die having a recess – herewith interpreted as a cavity – receiving and frictionally retaining an LED with a heat transfer bottom plate. However, US Patent ('468 B2), Claim 1, lines 1-11, does not specifically recite the cavity being defined by side plates extending from the bottom plate.
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		<p>It would be have been obvious to one of ordinary skill to realize that configuration of a cavity from the face of the mounting die would require sidewalls extending from the bottom surface of the mounting die.</p> <p>Thus, US Patent ('468 B2), Claim 1, lines 1-11 meets the limitations of Claim 1 of the instant application.</p>
Claim 2	Claim 1	As best understood, US Patent ('468 B2), Claim 1, lines 12 and 13, meets the limitations of Claim 2 of the instant application.
Claim 3	Claim 1	Thus, Claim 1, lines 13-17 of the US Patent ('468 B2) meets the limitations of Claim 3 of the instant application. Note: the channel recited in lines 13-17 has been considered as the "void".
Claim 4	Claim 1	As best understood, US Patent ('468 B2), Claim 1, lines 13-17, meets the limitations of Claim 4 of
Instant Application 10,796,360	U.S. Patent No.: 6, 827,468 B2	Discussion on differences, and additional References:
Claim 4	Claim 1	The instant application in similar manner, as detailed above, and as that applied for the rejections of claims 2 and 3 of the instant application.

Claim 5	Claim 3	As best understood, US Patent ('468 B2), Claim 3, lines 3-5, meets the limitations of Claim 5 of the instant application.
Claim 6	Claim 1	US Patent ('468 B2), Claim 1, lines 19-24, recites means – exterior enclosure – assembling the LED, the mounting die and the circuit board. Thus, US Patent ('468 B2), Claim 1, lines 19-24, meets the limitations of Claim 5 of the instant application.
Claims 7 and 8	Claim 1	US Patent ('468 B2), Claim 1, lines 1-11, meets most of the limitations of the claims 7 and 8 of the instant application. US Patent ('468 B2), Claim 1, lines 1-11, recites an interior die having a recess – herewith interpreted as a cavity – receiving and frictionally retaining an LED with a heat transfer bottom plate. However, US Patent ('468 B2), Claim 1, lines 1-14, does not specifically recite

Instant Application 10,796,360	U.S. Patent No.: 6, 827,468 B2	Discussion on differences, and additional References:
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Claims 6 and 7	Claim 1	the cavity being defined by side plates extending from the bottom plate.  It would be have been obvious to one of
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		<p>ordinary skill to realize that configuration of a cavity on upper face of the mounting die would require sidewalls extending from the bottom surface of the mounting die.</p> <p>In addition, US Patent ('468 B2), Claim 1, lines 1-11 recited the LED assembly including means – a heat transfer plate – thermally communicating with the mounting die.</p> <p>Thus, US Patent ('468 B2), Claim 1, lines 1-11 meets the limitations of claims 7 and 8 of the instant application.</p>
Claim 9	Claim 1	<p>US Patent ('468 B2), Claim 1, lines 19-24, recites means – exterior enclosure – assembling the LED, the mounting die and the circuit board.</p> <p>Thus, US Patent ('468 B2), Claim 1, lines 19-24, meets the limitations of Claim 9 of the instant application.</p>
Claim 10	Claim 15	<p>Thus, US Patent ('468 B2), Claim 15, lines 1-19, 31, and 42-45, meets the limitations of Claim 9 of the instant application.</p>

It would be have been obvious to one of ordinary skill in the art at the time of the invention to meet the limitations of claims 1-10 with the claimed features of claims 1,3 and 15 of U.S. Patent No.: 6, 827,468 B2.

This is an obviousness-type double patenting rejection.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnett et al. (US Patent No.: 6,541,800 B2) in view of Wojnarowski et al. (US Patent No.: 6,452,217 B1).

Regarding Claim 1, Barnett et al. ('800) discloses a light emitting diode (LED) assembly (Figures 1B) comprising:

- A prepackaged LED assembly (1B) having a front luminescent portion including a lens 18 and the LED chip 16 (Figures 1B, column 5, line 40); and a mounting base 62 (Figure 1B, column 7, lines 37-41); heat transfer plate 60 including the cathode 14 (Figure 1B, column 4, line 59; and column 7, lines 14 and 15); a first and second contact leads 14 and 12 extending from the sides (Figure 1B, column 4, lines 60 and 61);
- A mounting die 54 including a cavity formed by a bottom surface and upwardly extending sides of the mounting die 54 (Figure 1B, column 5, lines 9-12); the cavity receiving the prepackaged LED assembly 10



(Figure 1B, column 5, lines 4-9); and the plate including the bottom surface bearing the prepackaged LED assembly 10 (Figure 10).

However, Barnett et al. ('800 B2) does not specifically teach the mounting die including its bottom plate being thermally conductive.

On the other hand, Wojnarowski et al. ('217 B1) discloses a light emitting diode (LED) assembly 30 (Figure 11, column 5, lines 56- and 57) comprising:

- A thermally- conductive mounting die 83– the combination of the housing 83 filled with thermally conductive filler 63,64- bearing the LED 36 (Figures 16-18, column 8, lines 31-33).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the LED assembly of Barnett et al. ('800 B2) by providing the thermally conductive mounting die as taught by Wojnarowski et al. ('217 B1) for the benefits of heat removal for the benefits of high operational efficiency and long operational life of the device.

Regarding claims 2-6, Barnett et al. ('800 B2) in view of Wojnarowski et al. ('217 B1) discloses the LED assembly further including:

- The first contact lead 14 of the prepackaged LED assembly 10 in electrical contact with the mounting die 54 (Barnett, Figure 1B);
- A hole 59 in the rear surface – the bottom of the cavity – of the mounting die corresponding to the first contact lead 14 of the (Barnett, Figure 1B, column 5, lines 18 and 19) LED; and the hole 59 preventing the first

contact lead 14 of the prepackaged LED assembly from contacting the mounting die (Barnett, Figure 1B);

- A circuit board 40 positioned adjacent the mounting die 54, and the circuit board 54 electrically communicating with the second contact lead 12 of the prepackaged LED assembly (Barnett, Figure 1B, column 6, lines 1-6);
- Means 55 fastening the prepackaged LED assembly 10, mounting die 54 and circuit board 40 into a single unit (Barnett, Figure 1B, column 5, lines 12-15).

Regarding claims 7-9, Barnett et al. ('800 B2) in view of Wojnarowski et al. ('217 B1) discloses the prepackaged LED assembly meeting the limitations in similar manner as that applied for claims 1 and 6 detailed above.

Regarding Claim 10, Barnett et al. ('800 B2) discloses a flashlight 200 (Figure 10) comprising:

- A flashlight head connected to a battery having a first and second contacts (Barnett, Figure 10);
- A prepackaged LED assembly 10 (Figures 1B and 10) having a front luminescent portion including a lens 18 and the LED chip 16 (Figures 1B, column 5, line 40); and; a mounting base 62 (Figure 1B, column 7, lines 37-41); heat transfer plate 60 including the cathode 14 (Figure 1B, column 4, line 59; and column 7, lines 14 and 15); a first and second contact leads 14 and 12 extending from the sides (Figure 1B, column 4, lines 60 and 61);

- A mounting die 254 including a cavity formed by a bottom surface and upwardly extending sides of the mounting die 254 (Figures 10 and 1B, column 5, lines 9-12); the cavity receiving the prepackaged LED assembly 10 (Figure 1B, column 5, lines 4-9); and the plate including the bottom surface bearing the prepackaged LED assembly 10 (Figure 10).

However, Barnett et al. ('800 B2) does not specifically teach the mounting die including its bottom plate being thermally conductive.

However

On the other hand, Wojnarowski et al. ('217 B1) discloses a light emitting diode (LED) assembly 30 (Figure 11, column 5, lines 56- and 57) comprising:

A thermally- conductive mounting die 83– the combination of the housing 83 filled with thermally conductive filler 63,64- bearing the LED 36 (Figures 16-18, column 8, lines 31-33).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the LED assembly of Barnett et al. ('800 B2) by providing the thermally conductive mounting die as taught by Wojnarowski et al. ('217 B1) for the benefits of heat removal for the benefits of high operational efficiency and long operational life of the device.

- An exterior enclosure – the cylindrical element encasing the batteries and prepackaged LED and mounting die 254 (Barnett, Figure 10);

- Means – ON/OFF switch (not shown), but operationally needed – selectively energizing the prepackaged LED assembly 10 (Barnett, Figure 10); and
- Means – ON/OFF switch 81 (Wojnarowski, Figure 16, column 8, lines 31 - 32) selectively energizing the prepackaged LED assembly 10 (Barnett, Figure 10); and the switching means 81 positioned between the first and second contacts – circuitry requirement for the operation - of the prepackaged LED assembly (Wojnarowski, Figure 16, column 8, lines 31 - 32).

### ***Response to Amendment***

8. Applicant's arguments filed on December 9, 2002 with respect to the 35 U.S.C. 102(e) rejections of claims 1-7, 9-12, 14-17 and 19; and 35 U.S.C. 103(a) rejections of claims 8, 13 and 18 have been fully considered but are moot in view of the new ground(s) of rejections.

9. Because of the disapproval of the above-indicated terminal disclaimer, the double patenting rejections of claims 1-10 as indicated in section 5 of this office action is still effective.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:15 - 4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/1/05

  
Stephen Husar  
Primary Examiner